



WHITE PAPER

Protect Your Workforce: **How to Manage PFAS Risk at Work**

Manage PFAS Risk in the Workplace | Safety Guide



The Ultimate PFAS Guide for Safety and Compliance Leaders

The age of PFAS oversight has arrived, and for many safety and compliance leaders, the challenge is no longer invisible.

Once seen as niche chemicals used in firefighting foam or water-resistant gear, **PFAS are now the subject of intense regulatory, legal, and environmental scrutiny.** But the problem isn't just the presence of these substances. It's the lack of visibility into where they are, how they're being used, and what liabilities they create.

As pressure mounts from lawmakers, communities, and watchdog groups, organizations across sectors are being called to account. That shift puts safety and compliance teams on the front lines, tasked not only with understanding the scope of PFAS exposure but with building a measurable, auditable response.

This white paper is designed to help. It maps out the PFAS landscape with clarity and context, explores where these chemicals commonly appear, and highlights the industries and operations most at risk. Most importantly, it offers clear, practical steps for how safety professionals can take control before enforcement deadlines and public pressure close in.

If you're responsible for chemical safety, it's time to get ahead of the PFAS curve.



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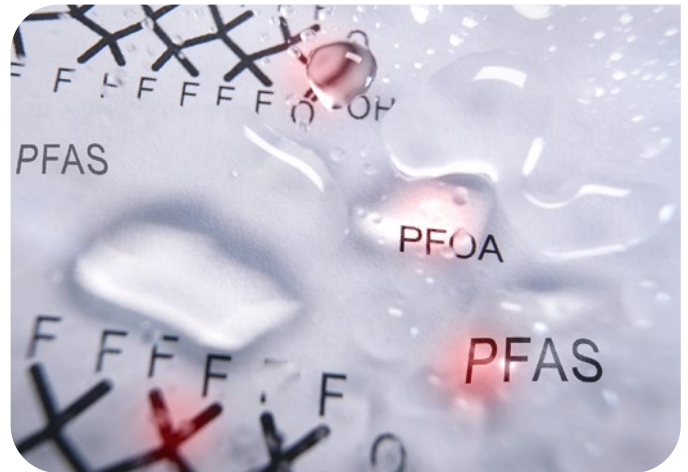
What Are PFAS?

PFAS stands for [per- and polyfluoroalkyl substances](#). These synthetic chemicals have been used since the 1940s to make products that resist water, oil, heat, and stains. Their durability and performance made them popular in everything from industrial coatings to household items.

What sets PFAS apart is how long they last. Their chemical structure, especially the bond between carbon and fluorine atoms, makes them nearly indestructible. They don't break down in the environment or in living organisms, which is why they're often called "forever chemicals."

This persistence leads to a process called bioaccumulation. Small exposures over time build up in the body. In fact, the CDC reports that nearly every American has PFAS in their blood. Even newer PFAS replacements like GenX aren't much better. They're harder to detect, and early research shows they may pose similar risks.

These chemicals are more than just persistent, they're mobile, invisible, and already in use across many industries. To see the full risk, you need to understand where they're hiding.



Quick fact:

There are over 12,000 known PFAS compounds, many of which are still being studied for health and environmental effects.



Where PFAS Are Found, and How They Get Into the Workplace

PFAS show up in more places than most people expect. They're built into many everyday products, often without clear labeling. Common examples include:

- Non-stick cookware
- Water-resistant clothing and boots
- Greaseproof food wrappers and containers
- Industrial coatings, paints, and sealants
- Firefighting foams (especially AFFF)
- Lubricants, gaskets, and treated filters

In the workplace, PFAS can enter the environment through normal tasks. They may be released when:

- Materials are cut, sanded, or sprayed
- Treated gear or tools are handled or washed
- Foam is used during training or emergency response
- Wastewater carries residue into drains or soil

For example, construction crews may apply waterproofing sprays that contain PFAS, releasing them into the air. Firefighters using foam can unknowingly introduce PFAS into local waterways. In manufacturing, surface coatings or specialty lubricants may emit vapors or leak during use. Even the break room isn't off-limits, non-stick pans or treated surfaces can shed small amounts of PFAS over time, especially with heat and wear.

Once introduced, PFAS don't stay put. They can spread through dust, air ducts, shared tools, or contaminated water. That's why managing exposure means more than just banning a single product. It takes real tracking, clear documentation, and active safety oversight to prevent unintentional spread across teams and sites.

Takeaway: *If your workplace uses materials that repel oil, water, or heat, PFAS might already be part of the equation.*

If PFAS can spread through a facility without being seen, the next question is: what happens after they get there?

Health and Environmental Risks

PFAS don't just stick around, they build up. Once they enter the body, they stay there for years. That's what makes the [health risks](#) so serious. It's not about one-time exposure. It's about the steady, daily contact that adds up over time.

And the risks aren't limited to people. Wildlife exposed to PFAS, especially animals in or near contaminated waterways, show the same bioaccumulation. Fish, shellfish, and birds carry high PFAS levels in areas where runoff or discharges are common.

Recent fieldwork confirms this. A [UK study](#) found elevated PFAS concentrations near wastewater treatment discharge points, particularly around London and Birmingham. In parts of the U.S., decades-old [firefighting foam](#) usage has contaminated groundwater near military bases and airports.

These chemicals don't break down. Once they're in a system, they cycle through it, moving from soil to water, into plants, animals, and people. And because they resist traditional filtration methods, cleanup is expensive and slow.

Research has linked long-term PFAS exposure to several serious health problems:

- Kidney and testicular cancer
- Immune system suppression, including lower vaccine response in children
- Endocrine disruption, which can lead to thyroid problems and hormonal changes
- Reproductive issues, including low birth weight and fertility problems
- Elevated cholesterol and liver damage, even at low exposure levels



Takeaway: *The health and environmental stakes are high, and they're not going away on their own.*

As science paints a clearer picture of the harm, regulators are stepping in fast.

Regulatory Pressure Is Mounting

As science catches up to the risk, regulations are racing to respond. Over the past two years, governments have shifted from monitoring PFAS to actively restricting them. This is no longer a “wait and see” issue. It’s here, and it’s enforceable.

Where regulations stand right now:

United States: In April 2024, the EPA finalized [national drinking water limits](#) for six PFAS chemicals. The new rules set thresholds in the parts-per-trillion range and apply to both public water systems and industrial dischargers. Additional PFAS groups are already under EPA review, with more likely to follow.

Canada: In May 2024, the federal government [declared all PFAS toxic](#) under the Canadian Environmental Protection Act (CEPA). The plan includes a class-based phaseout of most PFAS by 2027, with some limited exemptions for essential use.



European Union: A proposed REACH restriction [could ban nearly all PFAS](#) uses that aren’t considered “essential to society.” If adopted, it would be one of the largest chemical bans in EU history, affecting everything from cookware to electronics.

United Kingdom: PFAS regulation is under active review. A number of [local water authorities](#) have found contamination near sewage outfalls, landfills, and industrial estates. Parliament is considering a mix of national rules and regional enforcement models.

Australia: The current PFAS guidelines for drinking water are [under fire](#). Critics say the thresholds are too lenient compared to global standards. Updates are expected in the coming year, especially as legal cases tied to firefighting foam grow.

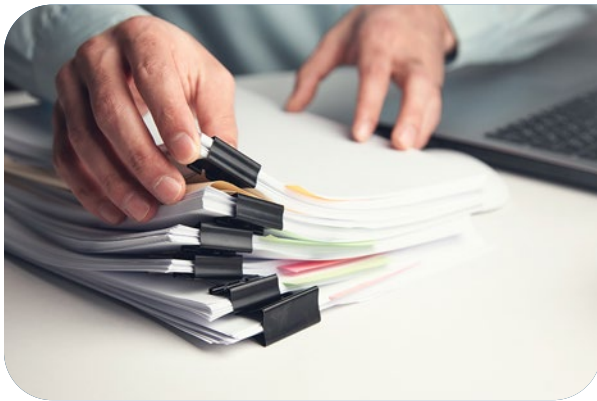
What this means for businesses:

Regulations are no longer limited to manufacturing. Any company that stores, uses, or disposes of PFAS-containing products could be subject to new rules.

Documentation and reporting requirements are increasing, especially for water discharges, hazardous waste, and workplace exposure.

Fines and [legal action](#) are already happening. Several U.S. companies have settled PFAS lawsuits for hundreds of millions of dollars.

Public scrutiny is growing. Many regulations are being pushed by local communities demanding clean water and corporate transparency.



Takeaway: *Staying ahead of PFAS rules isn't just smart, it's essential. Falling behind can cost companies time, money, and public trust.*

With rules tightening across the globe, the question for safety leaders is no longer if they need to act, it's how soon.

Who Needs to Act Now?

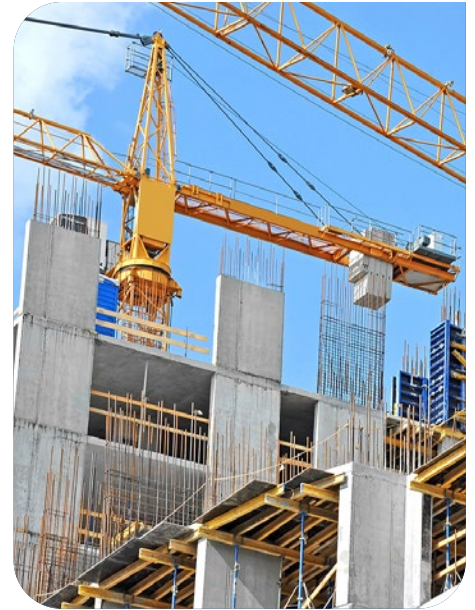
PFAS risk isn't limited to chemical manufacturers. It shows up across industries, often in places people overlook.

Construction and Contracting

If you're in construction, general contracting, or site development, PFAS could already be in your materials. Look closely at:

- Waterproofing sprays
- Spray foam insulation
- Joint sealants and adhesives
- Roofing membranes

Even personal protective equipment like gloves or jackets may have PFAS-based coatings to resist water or stains. These coatings can shed over time, especially during wear or cleaning.



Fire Services and Emergency Response

Firefighting foam is one of the biggest PFAS hazards. Aqueous film-forming foam (AFFF), still used in many training drills and active responses, contains some of the most persistent PFAS compounds known.

- Legacy contamination from training grounds and airfields is still showing up in groundwater.
- Even newer foams may contain reformulated PFAS unless labeled otherwise.

This makes proper storage, handling, and cleanup protocols critical for fire departments and hazmat teams.





Manufacturing and Industrial Operations

Many manufacturers rely on PFAS in surface treatments, coatings, and processing aids. Key sectors include:

- Metal finishing
- Electronics production
- Automotive assembly
- Textile and upholstery manufacturing

Whether it's a release agent on a mold, a waterproof coating, or a high-performance lubricant, these applications carry exposure risks for workers, and waste management concerns for facility leaders. As pressure builds, companies will need clear records showing where PFAS are used and how they're controlled.



Aviation and Aerospace

These industries rely on performance materials, and many still include PFAS. You'll often find it in:

- Hydraulic fluids
- Wire coatings
- Composite materials and adhesives
- Greases and sealants used in high-heat areas

Because replacements aren't always available, tracking usage and managing risks become the next best option.

Food Packaging and Processing

PFAS aren't just in wrappers. They're also in processing equipment, often as non-stick coatings on conveyor belts, slicers, or trays. That means:

- Residue can build up over time
- Wastewater can carry contamination offsite
- Routine cleanings may not remove it completely

This creates a long-term exposure pathway for facilities, even when using approved materials.



Takeaway: You don't have to manufacture PFAS to be affected by it. If your team handles treated materials, buys from suppliers that use PFAS, or works in a facility where these chemicals may be present, you're already part of the regulatory picture. It's time to get ahead of it.

Knowing you're at risk is only half the battle. The real challenge is what safety teams are expected to do about it, often with limited time, tools, or information.

Challenges for Safety and Compliance Professionals

Managing PFAS is different from managing most chemicals. These substances don't behave predictably. They don't break down with time, sunlight, or standard remediation. They move through water, soil, air, and even surfaces faster than most teams can track.

For safety and compliance professionals, this creates real-world obstacles:

Identifying exposure points: PFAS aren't always listed by name on product labels or SDSs. Tracking down sources means going upstream, asking vendors, reviewing procurement lists, and sometimes testing materials directly.

Staying current with regulations: Rules are changing fast and vary widely by location. A product that's legal in one state may be restricted in another. Global facilities face even more complexity with cross-border compliance.

Training and communication: Workers need practical guidance, not just warnings. Without clear protocols, even simple tasks, like wiping down equipment or disposing of packaging, can spread contamination.

Documentation burden: Regulators want detailed records. That includes where PFAS were used, how much was handled, who was trained, and what substitutes were considered. For teams without digital systems, this can become a major time sink.

Liability risk: As public awareness grows and science advances, legal action is becoming more likely. Companies could face future claims tied to PFAS exposure in workers, customers, or surrounding communities, even when current risks are not fully known.

Many companies still rely on spreadsheets or disconnected logs. That makes it nearly impossible to track chemicals in real time or coordinate action across teams. By the time issues surface, damage may already be done, and compliance failures can come with high costs.

The stakes are high, but the next step is clear. Leaders who act now can close the gaps and set their teams up for long-term success.

What Safety Leaders Can Do Today

PFAS management doesn't start with disposal, it starts with visibility. If you can't see what's being used or where it's going, you can't manage it. That's why the first step is always to build a clear, complete inventory.

Start with the basics:

Create a product-level chemical log: List every chemical, sealant, coating, and foam in use, then flag anything water-, oil-, or stain-resistant for closer review.

Reach out to vendors: Ask for updated SDSs and certifications related to PFAS content. Many manufacturers have already begun reformulating, but others haven't caught up.

Centralize your data: Use software tools that allow EHS, procurement, and compliance teams to share information in one place. This helps avoid gaps in oversight.

Once your data is in place, focus on people and processes:

Train employees on where PFAS might be present and how they could be exposed, especially through inhalation, skin contact, or accidental ingestion.

Set up quick-reporting workflows for new products, spills, or disposal issues. Make it easy to capture what's happening on the floor before it becomes a problem.

Even if regulations haven't hit your industry yet, they're coming. Showing inspectors and stakeholders that you know what you use, and have a plan for managing it, is a smart way to protect your operations.

***Pro tip:** Don't wait until you're required to report PFAS. Being prepared now builds trust, improves safety, and keeps your organization out of reaction mode.*

Having a plan is step one. Having the right system to carry it out, that's where HSI comes in.

How HSI Helps You Manage PFAS Risk

Managing PFAS starts with knowing where they are, how they're used, and what the rules demand. [HSI's EHS System](#) gives you the tools to do that, without the guesswork.

Track What Matters, All in One Place

With [HSI's chemical management capabilities](#), you can:

- Stay on top of your chemical inventory with real-time updates
- Store and access all your Safety Data Sheets (SDS) in a centralized system
- Get automatic alerts when regulations change or documentation needs an update
- Generate audit-ready reports with just a few clicks

This isn't just about checking boxes. It's about gaining visibility and control, before a surprise inspection or compliance deadline catches you off guard.



Turn Data into Action with HSI Intelligence

[HSI Intelligence](#) builds on this by adding built-in AI support. It connects the dots between what you're using, where your risks are, and how to respond:

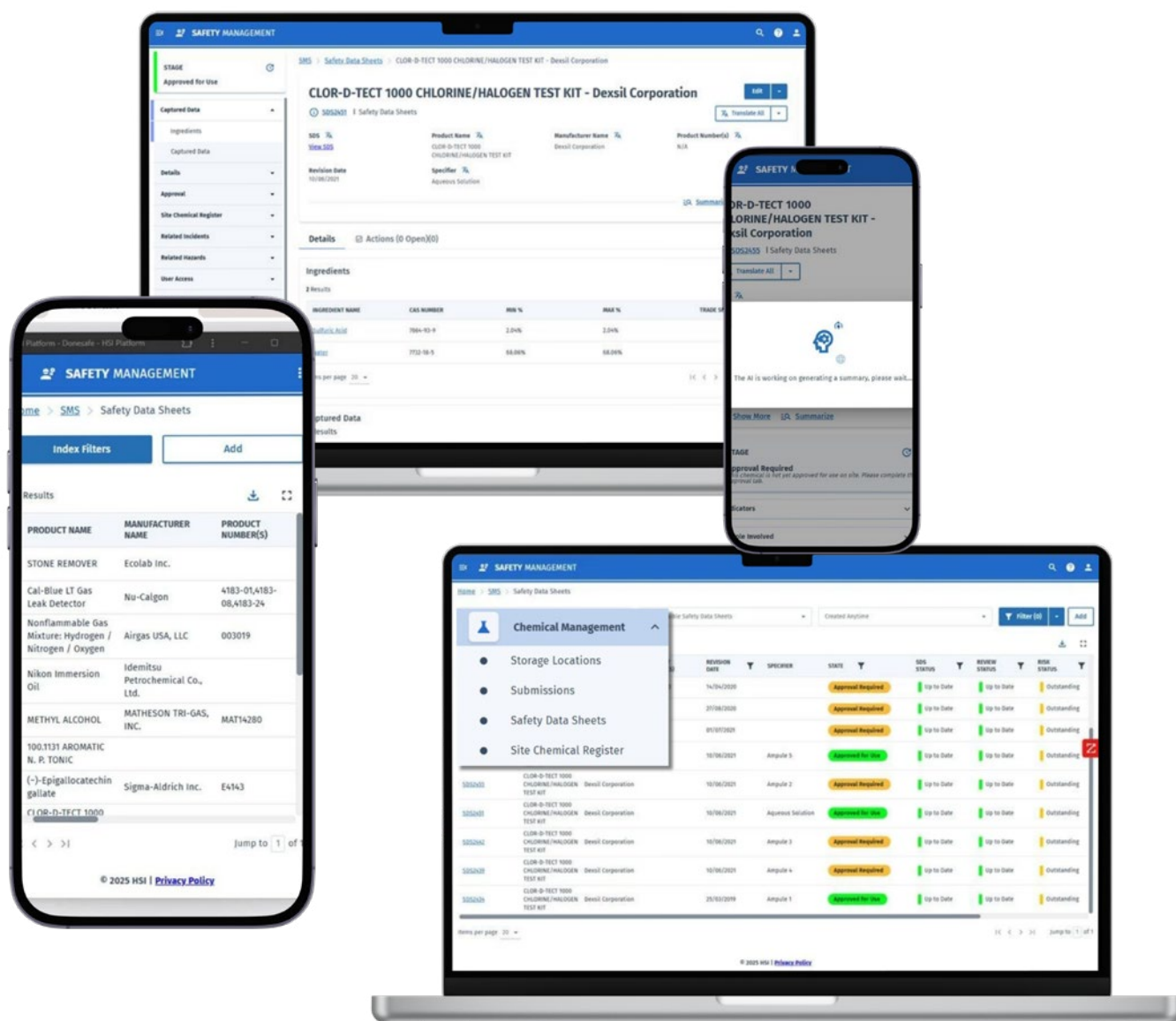
- Identify hazards from uploaded images using Spot the Hazard
- Receive corrective training suggestions tied directly to incidents
- Create custom training plans based on the specific chemicals at your site

Because HSI keeps training and chemical data in the same system, you don't have to bounce between platforms or lose time tracking down records. Everything's connected, so your team can make faster, smarter decisions when it counts.

Ready to Take the Lead on PFAS?

PFAS regulations are only getting stricter. Businesses that wait will be forced to react. Businesses that act now will stay compliant, avoid penalties, and build trust with employees and regulators.

Take control of your chemical safety program today. Let HSI help you turn compliance into a strength.



FAQs: PFAS and Workplace Safety

- **What does PFAS stand for in workplace safety?**

PFAS stands for per- and polyfluoroalkyl substances. These are man-made chemicals used in products that resist heat, water, and oil.

- **Why are PFAS called forever chemicals?**

They're called forever chemicals because they don't break down naturally. PFAS can stay in water, soil, and the human body for decades.

- **Where are PFAS found in the workplace?**

PFAS are found in firefighting foams, non-stick surfaces, water-resistant gear, food packaging, and many industrial coatings or sealants.

- **What are the risks of PFAS for employers?**

The biggest PFAS risks for companies include fines, lawsuits, and loss of trust. Many employers don't know PFAS are in their materials until it's too late.

- **How can companies manage PFAS compliance?**

Using HSI's EHS System, employers can track PFAS use, store Safety Data Sheets, receive real-time regulatory alerts, and assign training, all from one platform.

About HSI



HSI is your single-source partner for EHS, Compliance, and Professional Development solutions. HSI provides integrated e-learning content, training solutions, and cloud-based software designed to enable your business to improve safety, operations, and employee development. Across all industries, HSI helps safety managers, and technical employees, human resources, first responders, and operational leaders train and develop their workforce, keep workers safe, and meet regulatory and operational compliance requirements. HSI's focus is on training, software, and services for safety and compliance, workforce development, industrial skills, and emergency care. HSI is a unique partner that offers a suite of cloud-based software solutions including learning management, safety management, chemical SDS management, and more, integrated with content and training so businesses can not only monitor and manage multiple workflows in one system, but train employees via one partner.

For more information, visit [hsi.com](https://www.hsi.com)